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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,727	05/20/2005	Sun-Ho Lim	32584-1030	7847

7590 05/03/2007
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EXAMINER

PALO, FRANCIS T

ART UNIT	PAPER NUMBER
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3644

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,727	Applicant(s) LIM, SUN-HO	
	Examiner Francis T. Palo	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 6-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/20/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 2 and 6-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 1/29/07.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Korea on 11/27/02, 1/10/03 and 11/21/03.

It is noted, however, that applicant has not filed a certified copy of the foreign applications as required by 35 U.S.C. 119(b).

Claim Objections

The elected claims 1 and 3-5 appear to be a literal translation of the priority documents, the examiner has drafted an independent claim for applicant's consideration so as to render the claim to conventional U.S. practice for examination. This recommendation is presented to applicant for consideration so as to ensure patentable consideration of the claimed apparatus and to better distinguish functional and intended use from the claimed apparatus.

Art Unit: 3644

Suggested claim-1:

A nutriculture system for cultivation plants in a vertical array comprising a vertical column of stacked receptacles containing a growing medium, said receptacles having a rectangular cross section, open upper and lower ends, means for retaining soil received in the lower end and apertured means for receiving plants in one or more vertical surfaces of the receptacles; whereby a nutrient solution introduced into the upper end of the stacked receptacles passes through the uppermost receptacle through to the lowermost receptacle in the stacked column of receptacles.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or,

in the alternative,

under 35 U.S.C. 103(a) as obvious over **Schmidt** (US 4,216,617) 1980.

Art Unit: 3644

Regarding **claim-1** (as originally presented):

Schmidt '617 teaches a stack-type nutriculture pot system formed by stacking a plurality of pots each having culture soil for supporting a crop as claimed, and each of the pots is shaped cylindrically as claimed but lack the rectangular cross-section as recited in the instant claim; Schmidt recites in the '617 claim-2, "each container constituting the column of a central cylindrical portion having any cross-section", which is submitted as encompassing the claimed limitation of a rectangular cross-section.

Schmidt further teaches a plurality of bottomless containers as claimed in the '617 independent claim-1 and further depicts structure in figure-6 (17) readable on a lower network installed for holding culture as claimed.

Finally, as depicted, taught and claimed by Schmidt, nutrient is supplied at the uppermost pot to the lowermost pot through percolation from the top to the bottom through the medium containing stacked pots.

Regarding **claim-3**:

The discussion above regarding claim-1 is relied upon.

Schmidt teaches in col.-2 thereabout line-31, vegetable (tomatoes) production, which is readable on the capability, recited in the instant claim.

Art Unit: 3644

Regarding **claim-4**:

The discussion above regarding claim-1 is relied upon.

Schmidt discloses a disc (16), which partly closes the top of the highest container, and in combination with the flared upper shape of the container is readable on the hopper as claimed.

Allowable Subject Matter

Claim-5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The system of Schmidt relies upon a different cable suspension means (configuration) than that claimed, and to modify Schmidt as claimed would serve to destroy the reference of Schmidt.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis T. Palo whose telephone number is 571-272-6907. The examiner can normally be reached on M-Tu.,Th.-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Francis T. Palo

Francis T. Palo
Primary Examiner
Art Unit 3644